What is claimed is:

1. An oligonucleotide primer having up to 40 bases and comprising the sequence SEQ ID NO:1; SEQ ID NO:2; SEQ ID NO:3; SEQ ID NO:14; SEQ ID NO:15; SEQ ID NO:16; SEQ ID NO:27; SEQ ID NO:28; SEQ ID NO:29; SEQ ID NO:32; SEQ ID NO:33; or SEQ ID NO:34.

2. The oligonucleotide primer of claim 1 having 23-40 bases and comprising SEQ ID NO:1; SEQ ID NO:2; or SEQ ID NO:3.

3. The oligonucleotide primer of claim 1 having 23-40 bases and comprising SEQ ID NO:14; SEQ ID NO:15; or SEQ ID NO:16.

4. The oligonucleotide primer of claim 1 having 19-40 bases and comprising SEQ ID NO:27; SEQ ID NO:28; or SEQ ID NO:29.

5. The oligonucleotide primer of claim 1 having 19-40 bases and comprising SEQ ID NO:32; SEQ ID NO:33; or SEQ ID NO:34.

6. A method of detecting microorganisms in a liquid or liquified sample by polymerase chain reaction, comprising:

providing a liquid or liquified sample;

recovering bacteria from the liquid or liquified sample;

lysing the bacteria to provide a DNA sample; and

treating the DNA sample under PCR conditions with a primer set for detecting the presence of amplified DNA as an indication of the presence of *Escherichia coli* in the liquid or liquified sample wherein the primer set comprises SEQ ID NO:1 and SEQ ID NO:14; SEQ ID NO:2 and SEQ ID NO:15; or SEQ ID NO:3 and SEQ ID NO:16.

7. The method of claim 6, wherein in the method of treating the DNA sample, the primer set is SEQ ID NO:1 and SEQ ID NO:14.

8. The method of claim 6 wherein in the step of detecting the presence of amplified DNA, presence of *Escherichia coli* is indicated when a signal is obtained which exceeds a predetermined threshold.

9. A method of detecting microorganisms in a liquid or liquified sample by polymerase chain reaction, comprising:

providing a liquid or liquified sample;

recovering bacteria from the liquid or liquified sample;

lysing the bacteria to provide a DNA sample; and

treating the DNA sample under PCR conditions with a primer set for detecting the presence of amplified DNA as an indication of the presence of *Enterococcus faecalis* and/or *Enterococcus faecium* in the liquid or liquified sample wherein the primer set comprises SEQ ID NO:27 and SEQ ID NO:32; SEQ ID NO:28 and SEQ ID NO:33; or SEQ ID NO:29 and SEQ ID NO:34.

10. The method of claim 9, wherein in the method of treating the DNA sample, the primer set is SEQ ID NO:27 and SEQ ID NO:32.

11. The method of claim 9 wherein in the step of detecting the presence of amplified DNA, presence of *Enterococcus faecalis* and/or *Enterococcus faecium* is indicated when a signal is obtained which exceeds a predetermined threshold.

12. A method of detecting bacteria in a liquid or liquified sample by polymerase chain reaction, comprising:

providing a liquid or liquified sample;

recovering bacteria from the liquid or liquified sample;

lysing the bacteria to provide a DNA sample;

selecting a target gene and selecting a target DNA sequence in the target gene;

incubating the DNA sample under amplification conditions with DNA polymerase and a primer pair for amplifying the target DNA sequence; and

detecting the presence of amplified DNA as an indication of the presence of at least one of *Enterococcus faecalis* and/or *Enterococcus faecium* wherein the target gene is the transposase gene Tn1546.

13. A method of detecting bacteria in a liquid or liquified sample by polymerase chain reaction, comprising:

providing a liquid or liquified sample;

recovering bacteria from the liquid or liquified sample;

lysing the bacteria to provide a DNA sample;

selecting a pair of target genes and selecting a target DNA sequence in each target gene;

incubating the DNA sample under amplification conditions with a DNA polymerase and a primer pair for amplifying each target DNA sequence; and

detecting the presence of amplified DNA as an indication of the presence of bacteria carrying the selected target DNA sequences, wherein the pair of target genes comprise the *lamB* gene to detect *Escherichia coli* and the transposase gene Tn1546 to detect *Enterococcus faecalis* and/or *Enterococcus faecium*.

14. A kit for use in detecting *Escherichia coli* in a liquid or liquified sample, the kit comprising a primer pair having a first primer comprising an oligonucleotide primer of claim 2, and a second primer comprising a corresponding oligonucleotide primer of claim 3.

15. The kit of claim 14 wherein the primer pair comprises SEQ ID NO:1 and SEQ ID NO:14; or SEQ ID NO:2 and SEQ ID NO:15; or SEQ ID NO:3 and SEQ ID NO:16.

16. The kit of claim 14 further comprising a detection agent for detection of the amplified DNA.

17. The kit of claim 16 wherein the detection reagent is PicoGreen.

18. The kit of claim 14 further comprising a detection well having streptavidin coated thereon wherein the amplified DNA sequence is detected by the detection reagent.

19. The kit of claim 14 wherein one of the first primer and the second primer is biotinylated.

20. A kit for use in detecting *Enterococcus faecalis* and/or *Enterococcus faecium* in a liquid or liquified sample, the kit comprising a primer pair having a first primer comprising an oligonucleotide primer of claim 4 and a second primer comprising a corresponding oligonucleotide primer of claim 5.

21. The kit of claim 20 wherein the primer pair comprises SEQ ID NO:27 and SEQ ID NO:32, or SEQ ID NO:28 and SEQ ID NO:33, or SEQ ID NO:29 and SEQ ID NO:34.

22. The kit of claim 20 further comprising a detection agent for detection of the amplified DNA.

23. The kit of claim 22 wherein the detection reagent is PicoGreen.

24. The kit of claim 20 further comprising a detection well having streptavidin coated thereon wherein the amplified DNA sequence is detected by the detection reagent.

25. The kit of claim 20 wherein one of the first primer and the second primer is biotinylated.